

**A Purified 20 kDa Presenilin 2 C-terminal Fragment and  
Methods of Screening for Compounds that Inhibit Proteolysis  
of Presenilin 2**

***Abstract***

5           The present invention relates, in general, to presenilin 2 proteolytic  
fragments. In particular, the present invention relates to a purified 20 kDa  
presenilin 2 C-terminal fragment (PS2-CTF); purified nucleic acid molecules  
coding for the 20 kDa PS2-CTF protein; cells containing the nucleic acid  
molecules; non-human organisms containing the nucleic acid molecule;  
10       antibodies having specific binding affinity to the 20 kDa PS2-CTF; hybridomas  
containing the antibodies; methods of detecting 20 kDa PS2-CTF in a sample;  
diagnostic kits; methods for screening compounds that inhibit proteolytic  
processing of presenilin 2 in a cell, isolated compounds that inhibit proteolytic  
processing of presenilin 2 in a cell, and a method of inhibiting apoptotic cell death  
15       by preventing proteolytic cleavage of presenilin 2 at a cleavage site which  
generates a 20 kDa C-terminal fragment.